

# Tools to Support Antimicrobial Stewardship

all resources available @ [www.RxFiles.ca/ABX](http://www.RxFiles.ca/ABX)

## 5 Clinic Posters to Raise Antibiotic Awareness

**Gone Viral?**  
Skip the antibiotic.

Sometimes **NO PRESCRIPTION** is the **RIGHT PRESCRIPTION**.

**UPDATED 2024**

Promoting antibiotic awareness.

To learn more visit: [www.RxFiles.ca](http://www.RxFiles.ca)

### SINUSITIS PHARYNGITIS BRONCHITIS

**DID YOU KNOW...**  
nearly **ALL CASES** of **ACUTE SINUSITIS** in adults are caused by a **VIRUS**.

**NASAL DISCHARGE** **CONGESTION** **FACIAL PAIN**

How long have you had these symptoms?

**Focus on SYMPTOM MANAGEMENT**

**DID YOU KNOW...**  
**MOST CASES OF SORE THROAT ARE CAUSED BY VIRUSES**.

**SORE THROAT** **SWOLLEN and/or WHITE TONSILS** **COUGH** **FEVER**

Signs & Symptoms of **Acute Pharyngitis**

**Depending on your symptoms, between 70 to 99% of sore throats will be VIRAL and will NOT require antibiotics.**

Your provider may wait for the results of a **THROAT SWAB** to help determine whether or not an antibiotic is needed.

**DID YOU KNOW...**  
nearly **ALL CASES** of **ACUTE BRONCHITIS** are caused by a **VIRUS**.

**WARRING COUGH** **MUCUS** **CHEST DISCOMFORT**

Signs & Symptoms of **Acute Bronchitis**

**Depending on your symptoms, between 70 to 99% of acute bronchitis will be VIRAL and will NOT require antibiotics.**

Your provider may wait for the results of a **THROAT SWAB** to help determine whether or not an antibiotic is needed.

### ACUTE OTITIS MEDIA

**DID YOU KNOW...**  
**MANY EAR INFECTIONS GET BETTER WITHOUT AN ANTIBIOTIC**.

**EAR PAIN** **DIFFICULTY SLEEPING**

How long has your child been bothered by these symptoms?

**Focus on SYMPTOM MANAGEMENT**



Firstline

Scan here to download the Firstline app.

## Adult & Pediatric Viral Rx

**Rx Adult**

Parent Name: \_\_\_\_\_ Date: \_\_\_\_\_

The symptoms you are presenting with today suggest a viral infection:

- Common cold (upper respiratory tract infection) Cough can last 3-4 weeks
- Acute bronchitis Cough can last 3-4 weeks
- Sore throat (viral pharyngitis)
- Sinus infection (acute sinusitis)
- Other viral respiratory infection

**You do not need antibiotics because they do not work on viral infections.** Using antibiotics when not needed makes them less effective for potential future bacterial infections. They can cause side effects like diarrhea, rash, and/or in rare cases, allergic reactions, or kidney injury or liver injury.

How to help you feel better and manage symptoms:

- When you have a viral infection, it is very important to get plenty of rest and get your body time to fight off the virus.
- Drink as much as possible.
- Drink plenty of fluids.
- Wash your hands frequently and try to stay home to avoid spreading the infection.
- Take over-the-counter medications as advised.
- Acetaminophen (e.g., Tylenol) for fever and aches
- Ibuprofen (e.g., Advil) for fever and aches
- Chlorpheniramine (e.g., Chlor-Trimeton) for runny nose
- Decongestant (e.g., Sudafed) for nasal congestion
- Headache reliever (e.g., Tylenol) for headache
- Other: \_\_\_\_\_

Please return to your provider or seek more immediate medical care if:

- Symptoms worsen or do not improve in \_\_\_\_\_ (days, weeks, or months) at all time
- You develop persistent fever (above 38.3°C or 101°F) or worse
- Other: \_\_\_\_\_

Prescriber: \_\_\_\_\_

**Rx Pediatrics**

Parent Name: \_\_\_\_\_ Date: \_\_\_\_\_

The symptoms your child/patient with today suggest a viral infection:

- Common cold (upper respiratory tract infection) Cough can last 3-4 weeks
- Acute bronchitis Cough can last 3-4 weeks
- Sore throat (viral pharyngitis)
- Sinus infection (acute sinusitis)
- Other viral respiratory infection

**You do not need antibiotics because they do not work on viral infections.** Using antibiotics when not needed makes them less effective for potential future bacterial infections. They can cause side effects like diarrhea, rash, and/or in rare cases, allergic reactions, or kidney injury or liver injury.

How to help your child feel better and manage symptoms:

- When you have a viral infection, it is very important to get plenty of rest and get your body time to fight off the virus.
- Drink as much as possible.
- Drink plenty of fluids.
- Wash hands often and stay home to avoid spreading the infection.
- Take over-the-counter medications as advised.
- Acetaminophen (e.g., Tylenol) for fever and aches
- Ibuprofen (e.g., Advil) for fever and aches
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- Headache reliever (e.g., Tylenol) for headache
- Other: \_\_\_\_\_

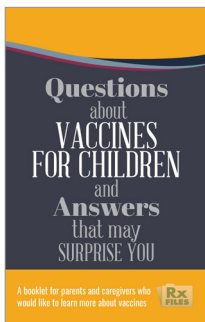
Please return to your provider or seek more immediate medical care if:

- Your child has a persistent fever (above 38.3°C or 101°F)
- Your child's symptoms do not improve in \_\_\_\_\_ (days, weeks, or months) at all time
- Your child has trouble breathing, persistent vomiting, or not drinking
- Other: \_\_\_\_\_

Prescriber: \_\_\_\_\_

Previous versions available in multiple languages.

## Related Antibiotic Materials



**ANTIBIOTICS:**  
How the **RISKS** of **USING** may outweigh the **RISKS** of **NOT-USING**, particularly for infections commonly caused by viruses.

Don't underestimate potential antibiotic harm!

High rates of antibiotic use leads to bacteria being **RESISTANT** to the drug's effects.

Antibiotics are responsible for **almost 1 OUT OF 3** Emergency Room visits for adverse drug events.

It is common to have **undesirable** side effects.

**RARE BUT SERIOUS** adverse events can occur, e.g. **kidney problems, severe skin reactions.**

Allergic reactions can occur with any antibiotic. The more antibiotic reactions you have, the more difficult it is to treat future infections.

There aren't really any "harmless" antibiotics. All antibiotics have the potential to cause harm.

## Additional Resources

- RxFiles
- Amoxicillin High-Dose Infographic [link](#)
- Penicillin Allergy De-labeling Tool [link](#)
- Penicillin Allergy Q & A [link](#)
- Antibiotic Harms Q & A [link](#)
- Antibiotics Chart [link](#)
- Common Infections Chart [link](#)
- SHA Antimicrobial Stewardship**
- Firstline App / Online [link](#)
- Ped Amox & Clavulin Dosing [link](#)
- Bugs are Getting Stronger Poster [link](#)
- Choosing Wisely**
- Delayed Rx [link](#)
- Using Antibiotics Wisely in Primary Care [link](#)

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2024



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# Gone **Viral?**

**Skip the antibiotic.**

*Sometimes*  
**NO PRESCRIPTION**  
*is the*  
**RIGHT PRESCRIPTION**

To learn more visit: [www.RxFiles.ca/ABX](http://www.RxFiles.ca/ABX)

**Promoting antibiotic awareness.**



# DID YOU KNOW...

## MANY EAR INFECTIONS GET BETTER WITHOUT AN ANTIBIOTIC

EAR INFECTIONS ARE ALSO KNOWN AS ACUTE OTITIS MEDIA

Your provider may recommend **waiting 48 hours** to help determine whether or not an antibiotic is needed.

How long has your child been bothered by these symptoms?

LOW  
GRADE  
FEVER

IRRITABILITY

RECENT  
COLD

EAR PAIN

+/-

DIFFICULTY SLEEPING

Most children will get better without an antibiotic, even if the infection is caused by a bacteria. You can expect your child to get better within 7 days.

### TIPS FOR PAIN & FEVER RELIEF

- Some options include **acetaminophen** TYLENOL or **ibuprofen** ADVIL/MOTRIN.
- **Schedule** these regularly for the first 48 hours while awake, then as required.
- Using a **child's weight** rather than **age** to determine how much medicine to give **may provide better pain and/or fever relief.**
- Ask a healthcare provider to help calculate the best dose.

Gone **Viral?**



Skip the antibiotic.

To learn more visit: [www.RxFiles.ca/ABX](http://www.RxFiles.ca/ABX) Promoting antibiotic awareness

# DID YOU KNOW...

nearly ALL CASES of ACUTE SINUSITIS  
in adults are caused by a VIRUS

NASAL  
DISCHARGE

CONGESTION

FACIAL  
PAIN

**How long have you  
had these symptoms?**

A **BACTERIAL** cause is only suggested when signs & symptoms persist without improvement for **10 days** OR worsen within 10 days after an initial improvement.

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**98%** Viral Acute Sinusitis:  
antibiotics NOT required

**2%** Bacterial Acute Sinusitis

Focus on  
**SYMPTOM MANAGEMENT**

**Gone Viral?**



**Skip the antibiotic.**

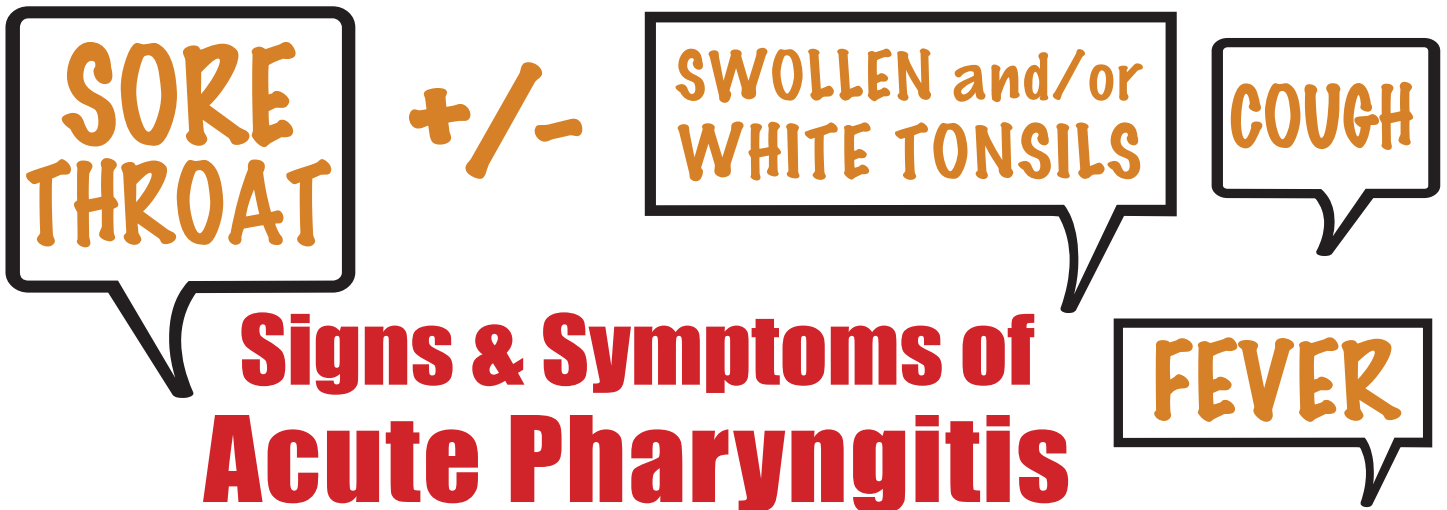
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# DID YOU KNOW...

## MOST CASES OF SORE THROAT ARE CAUSED BY VIRUSES

SORE THROAT IS ALSO KNOWN AS ACUTE PHARYNGITIS



Depending on your symptoms, between **70 to 99%** of sore throats will be **VIRAL** and will **NOT** require antibiotics.

Your provider may wait for the results of a **THROAT SWAB** to help determine whether or not an antibiotic is needed.

Gone **Viral?**



Skip the antibiotic.

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# DID YOU KNOW...

nearly ALL CASES of ACUTE BRONCHITIS  
are caused by a **VIRUS**

NAGGING  
COUGH

MUCUS

CHEST  
DISCOMFORT

## Signs & Symptoms of Acute Bronchitis



**90%** Viral Acute Bronchitis:  
antibiotics NOT required

**10%** Bacterial Acute Bronchitis

Studies have shown that using  
antibiotics provides no  
clinical improvement  
compared to not using antibiotics.

Gone **Viral?**

Skip the antibiotic.



Antimicrobial  
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Saskatchewan  
Health Authority



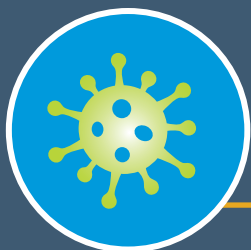
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# ANTIBIOTICS:

How the RISKS of USING may outweigh the RISKS of NOT-USING, particularly for infections commonly caused by viruses

Most antibiotics for common infections are considered safe, but this “reputation” may be overstated. For infections caused by viruses and those known to resolve on their own, the potential harms should be appreciated.

**DON'T UNDERESTIMATE potential antibiotic harms!**



High rates of antibiotic use leads to bacteria being **RESISTANT** to the drug's effects.

Antibiotics are responsible for almost 1 OUT OF 5 Emergency Room visits for adverse drug events.



It is common to have undesirable side effects.

**RARE BUT SERIOUS** adverse events can occur, e.g. tendon problems, severe skin reactions.



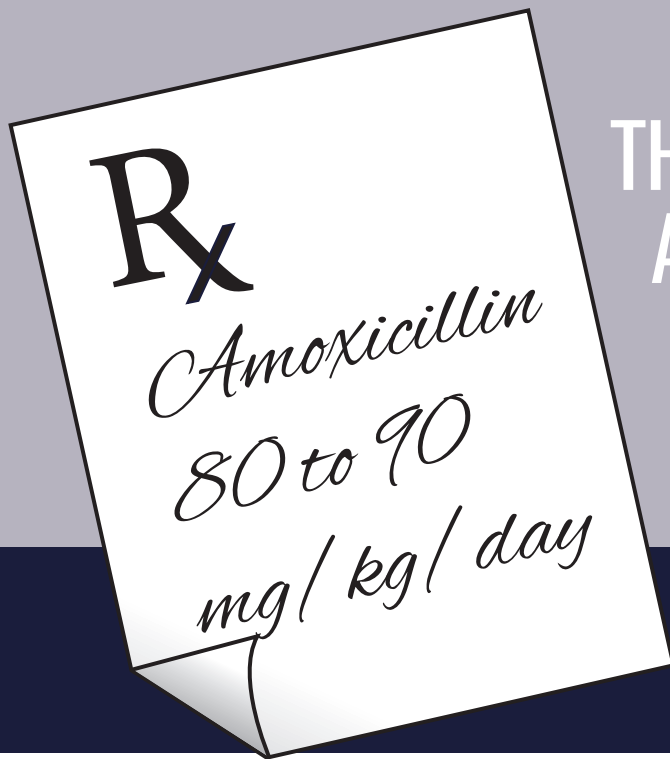
Allergic reactions can occur with any antibiotic. The more serious reactions are rare but can be life-threatening.

There aren't really any harms with antibiotics are there?

Well – Yes  
Actually there are!!!  
Consider the following...



For more information, visit [www.RxFiles.ca/ABX](http://www.RxFiles.ca/ABX)



THE DOSE MAY  
APPEAR HIGH  
BUT LIKELY NOT A  
REASON TO CALL



CONSIDER &  
CALCULATE FIRST

**Example of a 90 mg/kg/day prescription for acute otitis media**

Child's WEIGHT (kilograms)	Child's WEIGHT (approx. pounds)	Typical AGE for Child of this Weight	Typical HIGH DOSE Amoxicillin Prescription If using 250 mg/5mL	Typical DURATION of Treatment
7	15	6 to 11 months	300 mg BID = 6 mL BID	10 days
9	20	12 to 23 months	400 mg BID = 8 mL BID	
14	30	2 to 3 year old	625 mg BID = 12.5 mL BID	5 days <small>(may be up to 10 days if recurrent infection, treatment failure or perforated ear drum)</small>
18	40	4 to 5 year old	800 mg BID = 16 mL BID	
23	50	6 to 7 year old	1000 mg BID = 20 mL BID	
27	60	8 to 9 year old	1200 mg BID = 24 mL BID	
<i>Usual pediatric maximum dose is 4 grams per day</i>				

- Guidelines recommend high-dose amoxicillin for greater effectiveness for infections in certain individuals who have risk factors for intermediate-resistant *Streptococcus pneumoniae* (e.g. daycare, <2 years old, antibiotic exposure within last 3 months, unimmunized/underimmunized).
- High-dose amoxicillin is indicated for some cases of acute otitis media (BID or TID x 5 to 10 days), and sometimes other infections, such as community-acquired pneumonia (TID x 5 to 7 days for non-severe).
- After completing a weight-based dose check on a pediatric prescription, the higher dose range may sometimes appear alarmingly 'adult-like', but is reasonable, effective and well-tolerated.

For more information, visit [www.RxFiles.ca](http://www.RxFiles.ca)



References:

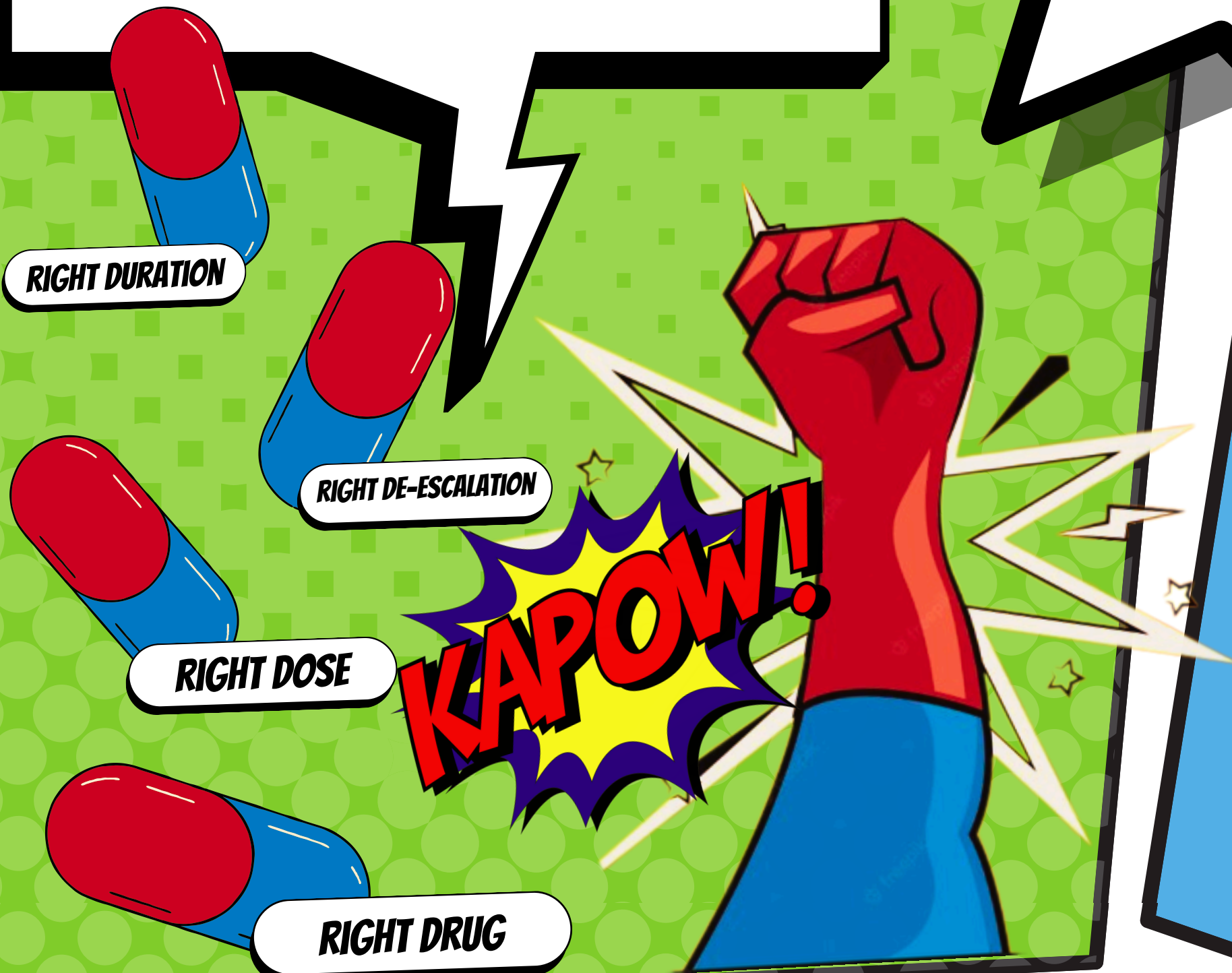
1. Blondel-Hill E, Fryters S. Bugs & Drugs 2.0. Alberta Health Services; 2023. App Accessed March 2024.
2. Firstline. Jim Pattison Children's Hospital. Acute Otitis Media guideline. Saskatchewan Health Authority; 2024. App Accessed March 2024.
3. Firstline. Jim Pattison Children's Hospital. Community Acquired Pneumonia guideline. Saskatchewan Health Authority; 2024. App Accessed March 2024.
4. Le Saux N, Robinson JL; Canadian Paediatric Society. Management of acute otitis media in children six months of age and older. *Paediatr Child Health*. 2016 Jan-Feb;21(1):39-50.
5. Le Saux N, Robinson JL; Canadian Paediatric Society. Uncomplicated pneumonia in healthy Canadian children and youth: Practice points for management. *Paediatr Child Health*. 2015 Nov-Dec;20(8):441-50.



# BUGS ARE GETTING STRONGER



**ANTIMICROBIAL STEWARDSHIP PROMOTES APPROPRIATE USE OF ANTIBIOTICS TO PREVENT THE GROWTH OF ANTIBIOTIC RESISTANT BACTERIA**



## **DID YOU KNOW?**

ANTIBIOTICS DON'T KILL VIRUSES THAT CAUSE COLDS, FLU, AND COVID-19 BUT THEY ARE OFTEN USED INAPPROPRIATELY FOR THESE REASONS

LEARN MORE ABOUT WHAT YOU CAN DO TO REDUCE ANTIBIOTIC RESISTANCE



# PENICILLIN ALLERGY ON-FILE?

## PENICILLIN ALLERGIES ARE RARE!

10% of the population carry a penicillin allergy label.

But less than 1% of people have a true penicillin allergy.



80% of true penicillin allergies disappear after 10 years.



Patient history can be used to assess the actual risk of penicillin allergies.



## RISKS TO PATIENTS WITH PENICILLIN ALLERGY LABELS

- Increased risk of **side effects**
- Increased use of **broad-spectrum antibiotics**
- Increased risk of **antibiotic resistance**
- Longer length of **hospital stays**
- Increased risk of **future infections**



## PENICILLIN ALLERGY DE-LABELING TOOL

Found in the guidelines section of **Firstline!**

It only takes a **couple of minutes** to assess the patient's risk.



FIRSTLINE



Very low-risk patients can be de-labeled!



Notify the PCP to receive orders and fill out the Drug Allergy Assessment Outcome Form



**Antimicrobial**  
Stewardship Program



# Do you actually have a penicillin allergy?

TRUE PENICILLIN ALLERGIES ARE VERY RARE

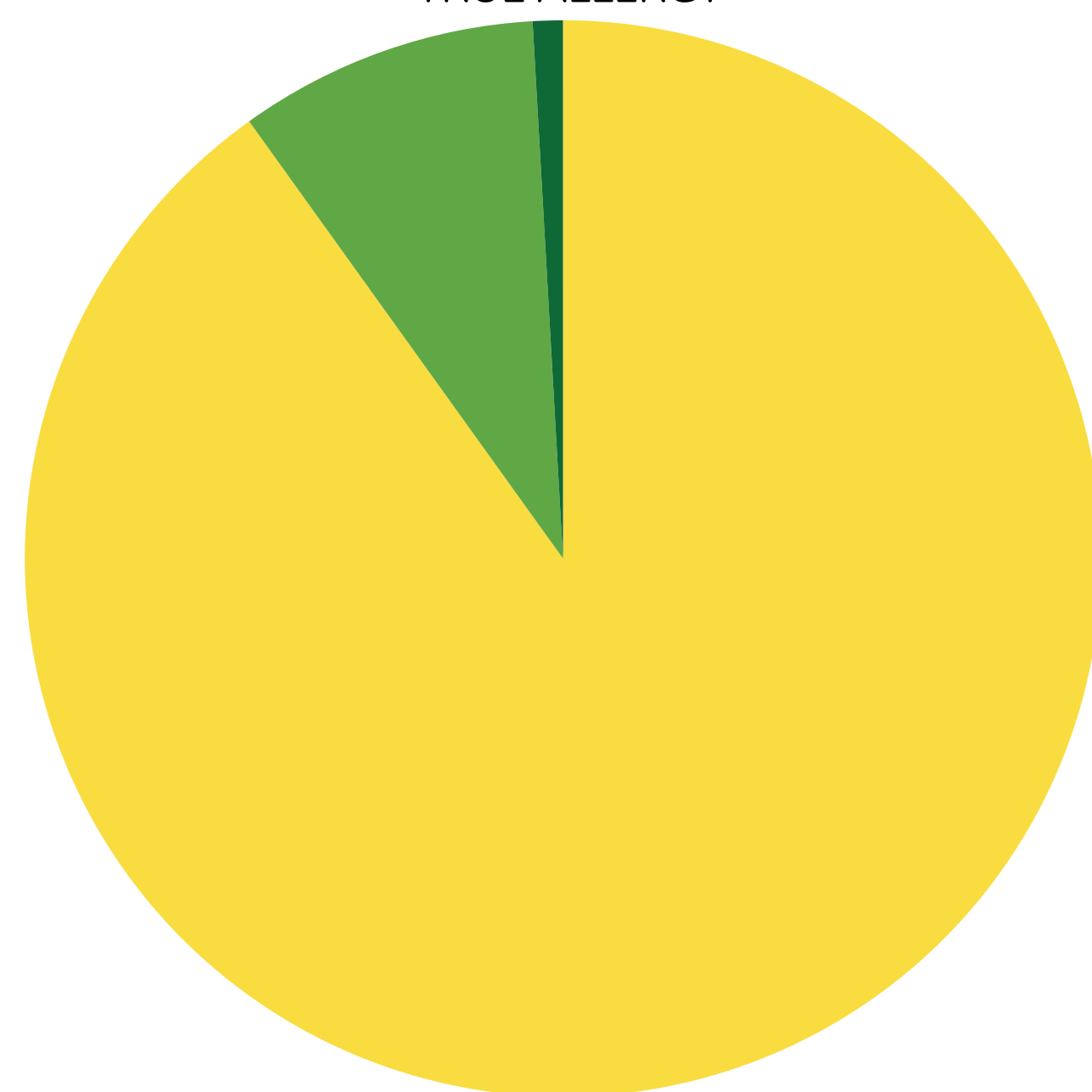
less than 1%



Antimicrobial Stewardship Program

- 10% of people report they have a penicillin allergy BUT less than 1% are truly allergic
- Majority of penicillin allergic patients are no longer allergic after 10 years

ALL PEOPLE REPORT AN ALLERGY TRUE ALLERGY



Not sure if you have a TRUE penicillin allergy or just an INTOLERANCE?

ASK a healthcare provider to assess your RISK of having a TRUE allergy.



Being INCORRECTLY labeled with a penicillin allergy means you are more likely to receive ALTERNATIVE antibiotics which:

- may be LESS EFFECTIVE
- have more SIDE EFFECTS
- may increase the risk of ANTIBIOTIC RESISTANCE



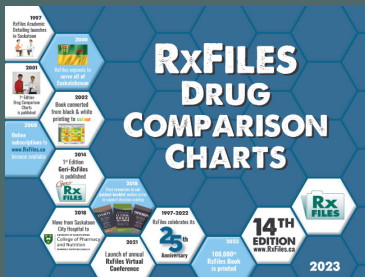
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*a balanced, independent approach to therapeutic decision making*



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